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Epidemiologic Notes and Reports

Babesiosis — Connecticut

Since August 1988, six cases of babesiosis—a rare protozoan parasitic disease—have been reported to the Connecticut Department of Health Services (CDHS); only two cases thought to have been acquired in Connecticut were reported before 1988.

The first person became ill in August 1988; onset of illness in the other five persons occurred between late June and mid-August 1989. Ages ranged from 68 to 86 years; five were men. All six persons had fever, headache, and fatigue. Two of the patients were taking oral corticosteroids for chronic obstructive pulmonary disease; none were otherwise immunosuppressed, and none were asplenic. Four patients were treated with both quinine and clindamycin; one received quinine without clindamycin; the sixth received no specific therapy for babesiosis. All six are now asymptomatic, and their parasitemia has cleared.

Five of the patients (including the first case-patient) lived within 3 miles of each other; the sixth lived 22 miles away. None of the patients gave a history of recent travel to areas with known endemic babesiosis, and none had received blood transfusions before becoming ill. Gardening near the home was the principal outdoor activity of four persons; the other two walked in fields near their homes. Only one person recalled being bitten by a tick before becoming ill, and all six had observed mice in the areas around their homes.

For all six persons parasites were detected on peripheral blood smears. In addition, each had IgG antibody titers to *Babesia microti* of ≥1:1024. *B. microti* was isolated (by hamster inoculation) from the blood of two patients and from eight (73%) of 11 mice trapped near four of the patients' homes. A statewide survey conducted in 1976–77 detected *B. microti* antibodies in mice collected in four of 22 sites (*1*). Three of these four sites are within 20 miles of five of the patients' homes and within 45 miles of the other patient's home.

The CDHS has alerted Connecticut physicians to the presence of a newly recognized focus of babesiosis within the state and has advised physicians to report all suspected cases. Surveys are planned to determine the extent of the infection in humans and rodents.

Reported by: JJ Gadbaw, MD, Lawrence and Memorial Hospital, New London; JF Anderson, PhD, Connecticut Agricultural Experiment Station, New Haven; ML Cartter, MD, JL Hadler, MD, State Epidemiologist, Connecticut Dept of Health Svcs. Div of Parasitic Diseases, Center for Infectious Diseases; Div of Field Svcs, Epidemiology Program Office, CDC.

Babesiosis — Continued

Editorial Note: *Babesia* is a protozoan parasite of red blood cells. In the United States, babesiosis is most commonly caused by *B. microti.* Babesiosis was recognized in the Northeast in the 1960s and is endemic in Nantucket, Martha's Vineyard, Shelter Island, and parts of Long Island (*2*).

In humans, *B. microti* infection may be subclinical or may present as a febrile illness with constitutional symptoms and anemia. Manifestations are most severe in elderly, immunosuppressed, or asplenic persons (*3*).

The natural hosts for *B. microti* include the white-footed mouse and the meadow vole. Tick bite by *Ixodes dammini* is the usual source of human infection. In addition, infection can be transmitted by blood transfusion (*3*). Entomologic surveys have detected increases in *I. dammini* and its spread to new areas (*4*). Physicians should be aware that babesiosis could occur in areas where *Babesia* was not previously considered endemic.

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Progress in Chronic Disease Prevention

Chronic Disease Reports: Deaths from Cervical Cancer — United States, 1984–1986

From 1984 through 1986, cervical cancer (*International Classification of Diseases, Ninth Edition, Clinical Modification* code 180) was the underlying cause of death in a mean of 4543 women per year in the United States.* Cervical cancer accounted for <3% of U.S. cancer deaths among women and was the 11th most common cause of cancer mortality (*1*). Worldwide, however, cervical cancer follows breast cancer as the second most common cause of cancer mortality among women (*2*).

Rates of cervical cancer mortality increase with age; in 1986, 53% of deaths from cervical cancer occurred among women aged ≥60 years. When adjusted for age, the rate of cervical cancer mortality was 2.8 times higher for black than for white women (*1*). From 1984 through 1986, the highest mean annual rates of mortality (age-adjusted to the 1986 U.S. population) occurred in southeastern states and in North Dakota and Maine (Table 1, Figure 1). Utah had the lowest rate (1.8 per 100,000 females) and the District of Columbia the highest rate (6.2 per 100,000).

For 1974–1985, the National Cancer Institute reported an overall 5-year survival rate of 67% for women with cervical cancer, although rates varied by stage at diagnosis (*1*). Survival was 88% for women whose disease was diagnosed at the local

*A mean rate over a 3-year period is reported because the number of cases per year is small; however, in a year-by-year comparison, there is little variation in numbers of cases or in the rankings of states by rates of death from cervical cancer.

Cervical Cancer Deaths — Continued

CHRONIC DISEASE REPORTS: CERVICAL CANCER, TABLE 1. Mean annual age-adjusted cervical cancer mortality, by area — United States, 1984–1986

Area	Mean annual deaths	Rate per 100,000 females	Rank by rate
Alabama	114	5.4	4
Alaska	6	5.1	6
Arizona	51	3.1	38
Arkansas	46	3.6	28
California	417	3.2	36
Colorado	36	2.5	46
Connecticut	50	2.8	43
Delaware	14	4.3	15
District of Columbia	22	6.2	1
Florida	238	3.4	32
Georgia	131	4.6	12
Hawaii	14	3.4	33
Idaho	14	3.1	37
Illinois	238	4.0	19
Indiana	115	4.1	17
Iowa	53	3.4	30
Kansas	48	3.6	27
Kentucky	91	4.8	9
Louisiana	110	5.4	5
Maine	29	4.6	13
Maryland	77	3.5	29
Massachusetts	97	2.9	39
Michigan	150	3.3	35
Minnesota	47	2.2	49
Mississippi	61	4.7	10
Missouri	106	3.8	23
Montana	16	4.0	20
Nebraska	20	2.4	47
Nevada	12	2.8	42
New Hampshire	22	4.3	16
New Jersey	155	3.7	26
New Mexico	19	2.9	40
New York	365	3.7	25
North Carolina	149	4.6	11
North Dakota	15	4.9	8
Ohio	216	3.8	22
Oklahoma	68	4.1	18
Oregon	46	3.3	34
Pennsylvania	231	3.4	31
Rhode Island	16	2.8	44
South Carolina	90	5.6	2
South Dakota	9	2.4	48
Tennessee	124	4.9	7
Texas	275	3.7	24
Utah	11	1.8	51
Vermont	11	4.3	14
Virginia	107	3.9	21
Washington	61	2.8	41
West Virginia	57	5.6	3
Wisconsin	66	2.7	45
Wyoming	4	1.9	50
Total	**4543**	**3.7**	

Cervical Cancer Deaths — Continued

stage; 51%, at the regional stage; and 14%, at the distant stage. At local and regional stages, survival was higher for whites than for blacks (*1*).

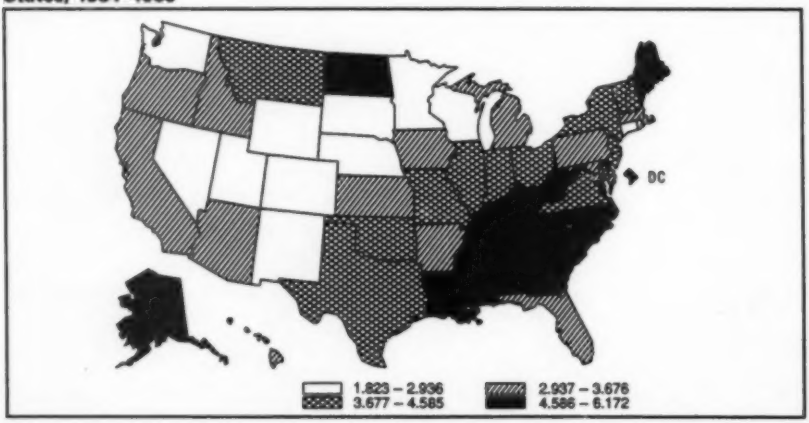
Reported by: Div of Surveillance and Epidemiologic Studies, Epidemiology Program Office; Div of Chronic Disease Control and Community Intervention, Center for Chronic Disease Prevention and Health Promotion, CDC.

Editorial Note: Sexual contact is a principal risk factor for cervical cancer. The risk varies directly with the number of sex partners and inversely with age at first intercourse. Certain serotypes of human papillomavirus are the infectious agents that may be related to risk for cervical cancer (*3,4*). Other risk factors include nonuse of barrier and spermicidal contraceptives, parity, socioeconomic status, and smoking (*2*). Nearly 29% of cervical cancer mortality is attributable to cigarette smoking among women (Table 2).

Early detection of cervical cancer using the Papanicolaou (Pap) test is effective in preventing deaths from cervical cancer (*5*). In Iceland, an upward trend in cervical cancer mortality was reversed following the introduction in 1964 of mass Pap screening for women aged 25–60 years (*6*). In 1970–1974, the risk of dying from cervical cancer was an estimated 12.5 times higher in Icelandic women not participating in screening than in screening participants.

The American Cancer Society (ACS) recommends annual Pap tests beginning with the onset of sexual activity; following three negative Pap tests, less frequent tests may be recommended by the woman's physician (*7*). In high-risk regions and high-risk populations, continued annual screening may be appropriate. In 1985, only 5% of U.S. women 20–80 years of age reported never having had a Pap test (*8*); however, an estimated 37% of cervical cancer deaths occur among these women (Table 2). Additional cervical cancer mortality can be prevented by greater compliance with recommended Pap smear guidelines (*9*). Through screening with the Pap test at least once every 3 years, cervical cancer mortality for women aged 20–70 years may be reduced by an estimated 70%–95% (*10*). Prompt, adequate follow-up of

CHRONIC DISEASE REPORTS: CERVICAL CANCER, FIGURE 1. Mean annual age-adjusted cervical cancer mortality rates per 100,000 females, by quartile — United States, 1984–1986



Cervical Cancer Deaths — Continued

CHRONIC DISEASE REPORTS: CERVICAL CANCER, TABLE 2. Cervical cancer (ICD-9-CM 180) indices — United States

Index	No.	Rate per 100,000 females
Mortality		
Underlying cause (mean, 1984–1986)	4,543	3.7
Multiple cause (1986)*	5,184	4.2
Mean annual incidence (1982–1986)†	12,625	10.2
Hospitalizations (1987)§	36,342	29.4
Years of potential life lost before age 65 (1987)¶	43,500	35.2

Risk factor	Crude prevalence (%)	Relative risk	Population-attributable risk (%; nonadditive)**	Estimated attributable deaths (nonadditive)††
Smoking				
Current	24.0§§	2.1§§	18.8	975
Former	15.3§§	1.9§§	9.8	508
Total	—	—	28.6	1483
Never having had a Pap test	5.0¶¶	12.5***	36.5	1892

*NCHS. Vital statistics mortality data, multiple cause of death detail, 1986 [machine-readable public-use data tape]. Hyattsville, Maryland: US Department of Health and Human Services, Public Health Service, 1988 (ICD-9-CM 180).

†Estimated from age-specific incidence and 1986 intercensal estimates of the U.S. population. National Cancer Institute. Cancer statistics review, 1973–1986. Bethesda, Maryland: US Department of Health and Human Services, Public Health Service, 1989; NIH publication no. 89-2789. Irwin R. 1980–1986 Intercensal population estimates by race, sex, and age [machine-readable data file]. Alexandria, Virginia: Demo-Detail, 1987.

§NCHS. National Hospital Discharge Survey, 1987 [machine-readable public-use data tape]. Hyattsville, Maryland: US Department of Health and Human Services, Public Health Service, 1987 (ICD-9-CM 180).

¶CDC. Years of potential life lost before age 65—United States, 1987. MMWR 1989;38:27–9 (ICD-9-CM 180).

**Population-attributable risk (PAR) = percentage of mortality attributable to the specific risk factor in the population. Because persons may be exposed to >1 risk factor, estimated population-attributable risk from different risk factors should not be added. CDC. Chronic disease reports in the *Morbidity and Mortality Weekly Report* (*MMWR*). MMWR 1989;38(no. S-1)

††Estimated attributable deaths = PAR × multiple cause mortality. Because persons may be exposed to >1 risk factor, estimated attributable deaths from different risk factors should not be added.

§§CDC. Reducing the health consequences of smoking: 25 years of progress—a report of the Surgeon General. Rockville, Maryland: US Department of Health and Human Services, Public Health Service, 1989; DHHS publication no. (CDC)89-8411.

¶¶For U.S. women, aged 20–79 years, in 1985. Makuc DM, Freid VM, Kleinman JC. National trends in the use of preventive health care by women. Am J Public Health 1989;79:21–6.

***Risk of mortality in (Icelandic) women not using Pap screening between 1970 and 1974 compared to women using Pap screening. Recalculated from Johannesson G, Geirsson G, Day N. The effect of mass screening in Iceland, 1965–74, on the incidence and mortality of cervical carcinoma. Int J Cancer 1978;21:418–25.

Cervical Cancer Deaths — Continued

women with positive Pap smears and attention to laboratory quality assurance are also valuable in reducing cervical cancer mortality. Use of barrier methods or spermicides for contraception reduces exposure to infectious agents and may reduce the initial risk of developing cervical cancer (*11,12*).

From 1979 to 1986, age-adjusted mortality rates of cervical cancer declined by 18% for all women (*13*); rates declined by 23% among whites and 15% among persons of other races. However, mortality rates among women <45 years of age have remained stable during this period, and the incidence of cervical cancer diagnosed in this population appears to have increased (*14*). Continued efforts to reduce cigarette smoking and to increase Pap smear use among women not appropriately screened should lead to further declines in cervical cancer mortality.

References

1. National Cancer Institute. Cancer statistics review, 1973–1986. Bethesda, Maryland: US Department of Health and Human Services, Public Health Service, 1989; NIH publication no. 89-2789.

(Continued on page 659)

TABLE I. Summary — cases of specified notifiable diseases, United States

Disease	38th Week Ending			Cumulative, 38th Week Ending		
	Sep. 23, 1989	Sep. 24, 1988	Median 1984-1988	Sep. 23, 1989	Sep. 24, 1988	Median 1984-1988
Acquired Immunodeficiency Syndrome (AIDS)	1,191	U*	183	25,555	23,032	9,555
Aseptic meningitis	415	213	375	6,044	4,500	6,504
Encephalitis: Primary (arthropod-borne & unspec)	22	21	37	580	606	818
Post-infectious	-	4	2	65	97	88
Gonorrhea: Civilian	10,659	15,897	17,377	476,784	502,400	602,607
Military	116	239	306	7,772	8,788	12,104
Hepatitis: Type A	642	627	482	24,791	18,259	16,143
Type B	345	424	502	16,288	16,398	18,595
Non A, Non B	29	39	61	1,707	1,914	2,620
Unspecified	38	53	67	1,685	1,547	3,262
Legionellosis	21	22	22	733	724	529
Leprosy	3	-	2	118	115	169
Malaria	25	38	31	908	719	719
Measles: Total†	156	42	15	11,236	2,279	2,471
Indigenous	146	42	13	10,711	2,048	2,054
Imported	10	-	2	525	233	282
Meningococcal infections	24	20	29	1,999	2,186	2,077
Mumps	50	61	49	4,126	3,686	3,563
Pertussis	122	87	109	2,361	2,006	2,006
Rubella (German measles)	2	7	7	304	167	439
Syphilis (Primary & Secondary): Civilian	411	880	643	28,445	29,366	20,262
Military	1	5	3	178	119	126
Toxic Shock syndrome	7	8	6	289	262	262
Tuberculosis	230	548	499	15,017	15,320	15,444
Tularemia	2	2	5	118	151	151
Typhoid Fever	6	14	9	351	274	247
Typhus fever, tick-borne (RMSF)	11	21	21	487	486	567
Rabies, animal	51	79	112	3,484	3,149	3,947

TABLE II. Notifiable diseases of low frequency, United States

	Cum. 1989		Cum. 1989
Anthrax	-	Leptospirosis	68
Botulism: Foodborne	18	Plague	3
Infant (Md. 1)	10	Poliomyelitis, Paralytic	-
Other	4	Psittacosis (N.C. 1)	77
Brucellosis (N.M. 1, Calif. 1)	61	Rabies, human	1
Cholera	-	Tetanus	31
Congenital rubella syndrome	3	Trichinosis	13
Congenital syphilis, ages < 1 year	158		
Diphtheria	3		

*Because AIDS cases are not received weekly from all reporting areas, comparison of weekly figures may be misleading.
†Three of the 156 reported cases for this week were imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending September 23, 1989 and September 24, 1988 (38th Week)

Reporting Area	AIDS	Aseptic Meningitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionellosis	Leprosy
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1988	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1989
UNITED STATES	25,555	6,044	560	65	476,764	502,400	24,791	16,288	1,707	1,685	733	118
NEW ENGLAND	1,077	322	20	2	14,565	15,665	529	789	59	62	80	8
Maine	46	14	5	-	201	309	18	44	5	1	5	-
N.H.	35	28	-	-	116	198	51	45	8	4	1	-
Vt.	11	34	4	-	47	92	28	64	5	-	1	-
Mass.	584	111	6	2	5,850	5,383	184	482	25	46	34	6
R.I.	67	58	-	-	1,058	1,374	29	52	4	4	9	1
Conn.	344	79	5	-	7,493	8,309	249	132	12	7	-	1
MID. ATLANTIC	7,368	757	53	5	68,323	81,431	2,913	2,377	184	203	186	19
Upstate N.Y.	975	333	20	4	10,956	10,425	656	438	62	10	59	3
N.Y. City	3,899	113	2	1	25,023	36,814	300	877	30	168	25	14
N.J.	1,654	-	31	-	11,131	11,309	315	460	24	5	35	1
Pa.	830	311	-	-	11,213	22,882	1,642	602	48	20	67	1
E.N. CENTRAL	1,935	1,099	183	6	90,770	83,371	1,434	1,987	194	77	201	3
Ohio	342	335	73	2	23,385	18,629	311	364	32	18	95	-
Ind.	277	171	34	3	6,747	6,398	167	330	24	28	40	1
Ill.	872	186	33	1	30,038	24,221	643	524	76	20	14	2
Mich.	351	338	38	-	23,624	28,841	200	479	40	11	33	-
Wis.	93	70	17	-	6,996	7,294	113	290	22	-	19	-
W.N. CENTRAL	624	280	24	3	22,763	21,037	925	706	78	24	28	1
Minn.	134	12	-	1	2,535	2,871	104	82	16	4	2	-
Iowa	43	46	8	-	1,963	1,596	82	26	13	5	5	-
Mo.	305	129	2	-	14,032	11,856	506	492	27	9	11	-
N. Dak.	6	12	1	-	104	132	4	19	4	2	1	-
S. Dak.	4	8	4	-	188	374	10	7	5	-	2	-
Nebr.	26	8	5	-	1,022	1,184	64	18	2	2	2	1
Kans.	106	65	4	2	2,919	3,024	155	62	11	2	5	-
S. ATLANTIC	5,413	1,176	112	23	135,650	142,460	2,407	3,168	259	255	90	1
Del.	70	58	1	-	2,331	2,158	35	109	5	8	8	-
Md.	476	157	15	2	15,799	14,780	663	658	23	27	23	-
D.C.	397	9	-	-	8,267	10,551	5	19	2	-	-	-
Va.	370	226	30	3	11,482	10,371	223	228	57	146	6	-
W. Va.	34	55	54	-	1,026	984	18	79	9	7	-	-
N.C.	354	131	7	2	19,984	18,958	326	770	66	-	24	1
S.C.	242	29	-	-	12,502	11,084	55	442	3	10	5	-
Ga.	831	92	1	1	26,174	27,301	270	305	10	8	15	-
Fla.	2,639	422	4	15	38,065	45,264	812	658	84	59	9	-
E.S. CENTRAL	856	490	23	2	39,946	39,391	307	1,177	115	7	38	-
Ky.	80	145	8	1	3,922	3,987	92	305	36	5	9	-
Tenn.	203	86	1	-	13,255	13,118	120	819	23	-	20	-
Ala.	163	182	13	-	12,827	12,333	66	174	50	1	9	-
Miss.	110	77	1	1	9,942	9,953	29	79	6	1	-	-
W.S. CENTRAL	2,147	666	49	5	53,048	54,409	2,750	1,630	113	384	39	19
Ark.	58	29	6	-	6,016	5,469	178	57	12	6	1	-
La.	364	57	11	-	11,369	10,911	200	282	14	1	6	-
Okla.	101	57	10	3	4,822	5,176	330	153	25	28	23	-
Tex.	1,624	543	22	2	31,041	32,853	2,042	1,138	62	349	9	19
MOUNTAIN	728	223	8	3	10,568	10,827	3,694	1,095	161	118	41	3
Mont.	13	5	-	-	142	330	67	39	6	3	2	1
Idaho	18	2	-	1	137	273	127	96	12	3	-	-
Wyo.	14	4	-	-	75	155	38	4	2	-	-	-
Colo.	227	108	1	1	2,090	2,362	387	130	43	48	4	-
N. Mex.	66	9	1	-	978	1,066	482	156	27	3	3	1
Ariz.	212	71	3	-	4,264	3,894	1,909	407	38	51	20	1
Utah	48	16	1	1	342	408	391	87	21	4	7	-
Nev.	130	8	2	-	2,530	2,339	293	176	12	6	5	-
PACIFIC	5,717	1,011	78	16	51,161	53,809	9,832	3,359	564	545	60	64
Wash.	401	-	2	1	4,709	5,219	2,368	740	154	44	22	6
Oreg.	183	-	-	-	2,260	2,342	1,733	366	60	11	2	1
Calif.	4,992	914	64	15	43,062	45,021	5,053	2,136	337	477	33	53
Alaska	11	21	9	-	725	749	532	46	5	3	1	-
Hawaii	130	76	3	-	405	478	146	71	8	10	2	4
Guam	1	-	-	-	-	116	-	-	-	-	-	-
P.R.	1,068	66	2	1	739	962	143	171	16	18	-	8
V.I.	26	-	-	-	491	338	-	6	-	-	-	-
Amer. Samoa	-	-	-	-	-	66	-	-	-	-	-	-
C.N.M.I.	-	-	-	-	-	37	-	-	-	-	-	-

N: Not notifiable U: Unavailable C.N.M.I.: Commonwealth of the Northern Mariana Islands

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending September 23, 1989 and September 24, 1988 (38th Week)

Reporting Area	Malaria	Measles (Rubeola)					Meningococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported*		Total									
	Cum. 1989	1989	Cum. 1989	1989	Cum. 1989	Cum. 1988	Cum. 1989	1989	Cum. 1989	1989	Cum. 1989	Cum. 1988	1989	Cum. 1989	Cum. 1988
UNITED STATES	908	148	10,711	10	525	2,279	1,999	50	4,126	122	2,381	2,006	2	304	167
NEW ENGLAND	59	-	286	-	35	108	145	-	72	9	290	221	-	6	7
Maine	-	-	-	-	1	7	13	-	-	1	17	11	-	-	-
N.H.	2	-	11	-	4	87	15	-	13	1	6	34	-	4	3
Vt.	2	-	1	-	2	-	6	-	3	-	8	3	-	1	-
Mass.	34	-	28	-	21	3	79	-	48	6	234	145	-	1	3
R.I.	10	-	38	-	3	-	1	-	-	-	11	10	-	-	1
Conn.	11	-	208	-	4	11	31	-	8	1	16	18	-	-	-
MID. ATLANTIC	171	2	647	-	170	863	272	4	379	40	170	121	1	26	12
Upstate N.Y.	26	-	42	-	98	37	91	2	137	32	77	73	1	11	2
N.Y. City	61	-	82	-	14	48	34	-	18	-	3	4	-	15	7
N.J.	49	-	318	-	-	241	81	-	167	-	24	4	-	-	1
Pa.	35	2	205	-	58	537	86	2	57	8	66	40	-	-	2
E.N. CENTRAL	70	123	3,030	-	94	180	252	1	441	-	251	231	-	24	26
Ohio	12	119	1,098	-	35	25	94	-	118	-	45	40	-	3	1
Ind.	10	-	78	-	-	57	28	-	40	-	19	58	-	-	-
Ill.	28	-	1,384	-	1	71	66	-	140	-	83	39	-	19	21
Mich.	13	4	306	-	15	23	48	1	110	-	35	33	-	1	4
Wis.	7	-	164	-	43	4	16	-	33	-	69	61	-	1	-
W.N. CENTRAL	27	-	634	-	11	13	66	4	380	1	152	108	-	8	2
Minn.	8	-	17	-	-	11	13	-	2	-	35	48	-	-	-
Iowa	3	-	8	-	1	-	2	3	37	1	14	21	-	1	-
Mo.	9	-	389	-	-	2	16	-	54	-	92	17	-	4	-
N. Dak.	1	-	-	-	-	-	-	-	-	-	2	11	-	-	-
S. Dak.	1	-	-	-	-	-	7	-	-	-	1	5	-	-	-
Nebr.	2	-	108	-	2	-	17	-	5	-	5	-	-	-	-
Kans.	3	-	132	-	8	-	11	1	282	-	3	6	-	1	2
S. ATLANTIC	154	15	850	1	51	347	360	19	716	11	229	201	-	9	17
Del.	7	1	67	-	1	-	2	-	1	-	1	7	-	-	-
Md.	25	6	55	1§	34	14	60	4	366	-	37	32	-	2	1
D.C.	8	-	32	-	4	-	15	-	118	-	-	1	-	-	-
Va.	28	-	20	-	3	166	40	4	102	-	28	21	-	-	11
W. Va.	2	-	51	-	-	6	12	1	12	-	24	8	-	-	-
N.C.	19	3	171	-	-	4	48	1	28	8	48	58	-	1	-
S.C.	7	-	3	-	-	-	24	4	27	-	-	1	-	-	-
Ga.	9	-	1	-	1	-	60	2	29	2	33	31	-	-	2
Fla.	49	5	150	-	8	157	89	3	34	1	58	42	-	6	3
E.S. CENTRAL	10	1	235	-	3	69	66	7	193	2	105	83	-	3	2
Ky.	-	-	37	-	3	35	39	-	9	-	1	12	-	-	-
Tenn.	3	U	147	U	-	-	5	U	51	U	42	25	U	2	2
Ala.	5	1	50	-	-	-	19	7	27	2	58	43	-	1	-
Miss.	2	-	1	-	-	34	4	N	N	-	3	4	-	-	-
W.S. CENTRAL	48	5	3,102	5	60	17	143	6	1,328	19	264	104	-	36	9
Ark.	-	-	-	-	15	1	9	-	128	-	21	19	-	-	2
La.	2	-	11	-	-	-	37	4	572	-	15	16	-	5	-
Okla.	6	-	122	-	-	8	22	-	187	-	46	42	-	1	1
Tex.	40	5	2,969	5†§	45	8	75	2	441	19	182	27	-	30	6
MOUNTAIN	22	-	352	4	40	140	62	8	167	23	526	579	-	35	6
Mont.	1	-	12	-	1	24	1	2	4	-	33	2	-	1	-
Idaho	2	-	-	-	2	1	2	-	15	1	58	300	-	32	-
Wyo.	1	-	-	-	-	-	-	-	8	-	-	1	-	1	-
Colo.	5	-	84	-	15	115	19	-	26	-	33	20	-	-	2
N. Mex.	3	-	16	-	15	-	2	N	N	-	24	45	-	-	-
Ariz.	7	-	141	4§	4	-	25	6	98	16	357	183	-	-	-
Utah	-	-	118	-	-	-	5	-	10	6	20	27	-	-	3
Nev.	3	-	1	-	3	-	8	-	6	-	1	1	-	1	1
PACIFIC	347	-	1,875	-	61	542	643	1	450	17	374	358	1	159	86
Wash.	26	-	28	-	13	2	68	-	36	4	151	84	-	-	-
Oreg.	18	-	9	-	19	4	44	N	N	3	10	25	-	3	-
Calif.	293	-	1,819	-	20	524	524	-	397	9	195	183	-	132	59
Alaska	4	-	1	-	-	-	5	-	2	-	1	7	-	-	-
Hawaii	6	-	18	-	9	12	2	1	15	1	17	58	1	24	27
Guam	-	U	-	U	-	1	-	U	-	U	-	-	U	-	1
P.R.	1	U	490	U	-	190	4	U	8	U	4	14	U	8	2
V.I.	-	U	4	U	-	-	-	U	15	U	-	-	U	-	-
Amer. Samoa	-	U	-	U	-	-	-	U	-	U	-	-	U	-	-
C.N.M.I.	-	U	-	U	-	-	-	U	-	U	-	-	U	-	-

*For measles only, imported cases includes both out-of-state and international importations.
N: Not notifiable U: Unavailable †International §Out-of-state

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending September 23, 1989 and September 24, 1988 (38th Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum. 1989	Cum. 1988	Cum. 1989	Cum. 1989	Cum. 1988	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1989
UNITED STATES	28,445	29,366	269	15,017	15,320	118	351	487	3,484
NEW ENGLAND	1,233	819	13	422	381	2	29	7	8
Maine	9	12	3	12	17	-	-	-	2
N.H.	10	6	1	19	8	-	-	-	1
Vt.	1	3	-	8	4	-	-	-	-
Mass.	378	313	4	219	216	2	19	4	2
R.I.	25	26	2	47	32	-	5	1	-
Conn.	810	459	3	117	104	-	5	2	3
MID. ATLANTIC	5,078	7,326	41	2,918	3,008	2	108	56	574
Upstate N.Y.	623	386	8	237	399	1	27	13	47
N.Y. City	2,630	5,302	2	1,588	1,638	-	49	3	-
N.J.	1,011	679	9	597	493	-	24	21	18
Pa.	814	959	22	496	478	1	8	19	509
E.N. CENTRAL	1,293	905	43	1,563	1,681	3	40	57	95
Ohio	105	76	13	279	322	-	8	30	9
Ind.	47	42	7	114	175	1	3	19	2
Ill.	584	385	9	708	717	-	19	6	24
Mich.	446	281	14	373	391	1	6	2	18
Wis.	111	41	-	89	76	1	4	-	42
W.N. CENTRAL	244	174	34	377	399	46	6	75	448
Minn.	37	17	8	72	63	-	1	-	98
Iowa	29	17	5	28	43	-	2	2	110
Mo.	126	107	9	178	201	33	2	58	46
N. Dak.	2	2	-	12	13	-	-	1	44
S. Dak.	1	-	4	21	26	6	-	4	71
Nebr.	21	25	5	18	11	3	-	-	39
Kans.	28	6	3	48	42	4	1	10	40
S. ATLANTIC	10,306	10,294	23	3,240	3,301	6	31	162	1,053
Del.	140	81	1	30	29	-	2	1	27
Md.	576	553	1	279	317	2	7	11	292
D.C.	608	487	1	138	143	-	2	-	2
Va.	392	307	4	265	300	4	6	11	196
W. Va.	13	34	-	54	58	-	-	2	44
N.C.	742	581	6	411	348	-	2	93	7
S.C.	622	526	4	383	359	-	2	26	167
Ga.	1,955	1,799	3	510	547	-	3	15	178
Fla.	5,258	5,926	3	1,190	1,200	-	7	3	140
E.S. CENTRAL	2,019	1,481	6	1,210	1,264	6	2	51	285
Ky.	40	48	2	301	287	1	1	14	115
Tenn.	824	651	3	361	374	4	-	27	72
Ala.	655	438	1	344	387	-	1	6	95
Miss.	500	344	-	204	216	1	-	4	3
W.S. CENTRAL	4,274	3,121	22	1,818	1,919	34	13	54	478
Ark.	264	183	1	189	214	24	-	15	62
La.	1,032	804	-	249	209	-	1	-	7
Okla.	83	111	12	155	174	10	1	32	79
Tex.	2,895	2,223	9	1,225	1,322	-	11	7	330
MOUNTAIN	571	552	39	324	440	13	7	21	211
Mont.	1	3	-	11	15	1	-	14	68
Idaho	1	2	3	22	18	-	-	2	9
Wyo.	6	1	2	-	5	2	-	2	65
Colo.	55	81	6	19	73	2	2	3	20
N. Mex.	21	39	5	62	79	2	-	-	20
Ariz.	205	123	10	148	186	-	4	-	22
Utah	13	14	9	27	18	5	1	-	2
Nev.	269	289	4	35	46	1	-	-	5
PACIFIC	3,427	4,794	48	3,145	2,927	8	115	4	332
Wash.	252	171	3	176	162	-	7	-	-
Oreg.	178	214	-	104	114	4	5	1	-
Calif.	2,983	4,375	44	2,686	2,511	2	94	3	268
Alaska	5	10	-	37	30	-	-	-	64
Hawaii	9	24	1	132	110	-	9	-	-
Guam	-	3	-	-	20	-	-	-	-
P.R.	385	468	-	210	191	-	4	-	50
V.I.	8	1	-	4	6	-	-	-	-
Amer. Samoa	-	-	-	-	3	-	-	-	-
C.N.M.I.	-	1	-	-	17	-	-	-	-

U: Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending September 23, 1989 (38th Week)

Reporting Area	All Causes, By Age (Years)						P&I**
	All Ages	>65	45-64	25-44	1-24	<1	Total
NEW ENGLAND	591	400	111	44	17	19	49
Boston, Mass.	169	97	38	18	6	10	23
Bridgeport, Conn.	51	37	8	2	3	1	5
Cambridge, Mass.	22	16	5	1	-	-	1
Fall River, Mass.	23	18	4	-	1	-	1
Hartford, Conn.§	58	39	12	5	1	1	2
Lowell, Mass.	19	14	2	2	-	1	2
Lynn, Mass.	9	5	3	1	-	-	-
New Bedford, Mass.	24	19	4	1	-	-	-
New Haven, Conn.	46	30	11	2	1	2	3
Providence, R.I.	39	27	5	5	2	-	-
Somerville, Mass.	4	3	-	1	-	-	-
Springfield, Mass.	44	32	5	3	1	3	5
Waterbury, Conn.	33	24	7	1	1	-	4
Worcester, Mass.	50	39	7	2	1	1	3
MID. ATLANTIC	2,713	1,850	567	299	74	123	142
Albany, N.Y.	54	31	14	5	1	3	1
Allentown, Pa.	20	18	2	-	-	-	1
Buffalo, N.Y.	106	75	20	5	2	4	5
Camden, N.J.	26	12	8	3	2	1	-
Elizabeth, N.J.	21	15	1	5	-	-	3
Erie, Pa.†	56	40	14	2	-	-	8
Jersey City, N.J.	43	24	10	6	2	1	2
N.Y. City, N.Y.	1,362	819	299	183	30	31	66
Newark, N.J.	74	22	16	22	3	11	6
Paterson, N.J.	20	10	5	3	1	1	1
Philadelphia, Pa.	547	300	106	48	28	65	23
Pittsburgh, Pa.†	57	36	17	3	-	1	5
Reading, Pa.	32	27	5	-	-	-	6
Rochester, N.Y.	113	87	19	5	1	1	7
Schenectady, N.Y.§	25	21	3	1	-	-	-
Scranton, Pa.†	30	24	3	2	-	1	2
Syracuse, N.Y.	46	35	4	4	2	1	2
Trenton, N.J.	31	20	10	-	1	-	-
Utica, N.Y.	22	13	7	-	-	2	2
Yonkers, N.Y.	28	21	4	2	1	-	2
E.N. CENTRAL	2,401	1,586	484	181	57	83	106
Akron, Ohio	45	30	11	1	-	3	-
Canton, Ohio	32	24	7	-	-	1	2
Chicago, Ill.§	564	362	125	45	10	22	16
Cincinnati, Ohio	167	118	29	13	4	3	20
Cleveland, Ohio	193	119	40	17	8	9	3
Columbus, Ohio	220	135	51	19	6	9	1
Dayton, Ohio	117	79	25	3	5	5	3
Detroit, Mich.	231	135	39	39	7	11	7
Evansville, Ind.	62	42	12	5	1	2	7
Fort Wayne, Ind.	51	34	9	5	2	1	2
Gary, Ind.	22	13	4	4	1	-	2
Grand Rapids, Mich.	90	65	17	7	-	1	7
Indianapolis, Ind.	137	97	25	4	6	5	6
Madison, Wis.	39	27	6	4	1	1	6
Milwaukee, Wis.	134	97	28	5	1	3	5
Peoria, Ill.	43	33	7	-	1	2	4
Rockford, Ill.	48	35	10	-	-	3	2
South Bend, Ind.	44	32	6	5	-	1	3
Toledo, Ohio	111	78	24	4	4	1	8
Youngstown, Ohio§	51	41	9	1	-	-	2
W.N. CENTRAL	922	675	136	57	30	24	44
Des Moines, Iowa§	69	43	11	6	7	2	3
Duluth, Minn.	26	20	4	1	-	1	1
Kansas City, Kans.§	66	51	10	4	1	-	2
Kansas City, Mo.§	104	74	21	7	1	1	5
Lincoln, Nebr.	48	36	7	1	4	-	4
Minneapolis, Minn.	289	208	41	23	11	6	15
Omaha, Nebr.	90	67	10	4	2	7	5
St. Louis, Mo.	124	90	19	7	1	7	5
St. Paul, Minn.	66	56	6	2	2	-	2
Wichita, Kans.	40	30	7	2	1	-	2
S. ATLANTIC	1,161	680	243	139	46	53	60
Atlanta, Ga.	179	100	37	31	5	6	5
Baltimore, Md.	160	95	32	15	7	11	4
Charlotte, N.C.§	80	47	20	9	2	2	6
Jacksonville, Fla.	104	60	18	12	5	9	4
Miami, Fla.	100	46	32	14	6	2	-
Norfolk, Va.	79	48	17	9	2	5	4
Richmond, Va.	79	48	15	10	1	5	13
Savannah, Ga.	49	38	9	1	1	2	8
St. Petersburg, Fla.	76	55	11	6	2	2	3
Tampa, Fla.	77	45	17	5	5	5	10
Washington, D.C.	159	85	34	27	9	4	3
Wilmington, Del.	19	17	1	-	1	-	-
E.S. CENTRAL	644	418	136	55	13	24	39
Birmingham, Ala.	94	61	23	6	-	4	4
Chattanooga, Tenn.	64	42	9	8	1	4	5
Knoxville, Tenn.	76	42	22	4	3	5	7
Louisville, Ky.	38	19	11	5	-	3	1
Memphis, Tenn.	144	98	27	14	4	1	11
Mobile, Ala.	25	17	2	5	1	-	-
Montgomery, Ala.	61	46	9	4	1	1	2
Nashville, Tenn.	142	91	33	9	3	6	9
W.S. CENTRAL	1,754	1,077	358	196	61	59	70
Austin, Tex.	62	43	11	6	2	-	6
Baton Rouge, La.	46	32	7	3	1	3	3
Corpus Christi, Tex.§	45	33	9	3	-	-	1
Dallas, Tex.§	188	101	40	26	11	10	4
El Paso, Tex.	90	53	20	7	4	5	5
Fort Worth, Tex	88	53	15	8	3	8	5
Houston, Tex.§	734	436	169	89	24	16	18
Little Rock, Ark.	63	43	12	5	2	1	6
New Orleans, La.	136	85	20	20	3	8	-
San Antonio, Tex.	175	116	28	18	8	4	14
Shreveport, La.	50	32	11	5	-	2	2
Tulsa, Okla.	77	50	16	6	3	2	7
MOUNTAIN	697	463	133	64	19	18	22
Albuquerque, N. Mex.	89	54	18	9	7	1	2
Colo. Springs, Colo.	94	64	9	1	-	3	2
Denver, Colo.	119	77	24	13	2	3	3
Las Vegas, Nev.	106	70	27	7	2	-	3
Ogden, Utah	29	24	2	1	1	1	1
Phoenix, Ariz.	131	80	25	18	1	7	3
Pueblo, Colo.	37	28	8	2	1	-	5
Salt Lake City, Utah	43	29	5	8	1	-	-
Tucson, Ariz.	109	79	18	5	4	3	3
PACIFIC	1,954	1,247	408	179	70	44	122
Berkeley, Calif.	10	7	1	2	-	-	-
Fresno, Calif.	75	45	23	1	3	3	4
Glendale, Calif.	34	24	7	2	-	-	4
Honolulu, Hawaii	73	44	17	3	5	4	5
Long Beach, Calif.§	88	51	16	13	5	3	11
Los Angeles Calif.	584	368	118	62	25	6	25
Oakland, Calif.§	80	48	18	8	4	2	4
Pasadena, Calif.	26	17	6	2	1	-	-
Portland, Oreg.	133	94	20	10	3	6	7
Sacramento, Calif.	154	106	28	14	3	3	13
San Diego, Calif.	128	69	37	14	4	4	12
San Francisco, Calif.	128	69	37	14	4	4	12
San Jose, Calif.	171	114	33	14	4	6	14
Seattle, Wash.	164	110	33	16	4	1	6
Spokane, Wash.	62	47	10	1	2	2	2
Tacoma, Wash.	44	34	4	3	3	-	3
TOTAL	12,837††	8,204	2,576	1,214	387	447	654

*Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

**Pneumonia and influenza.

†Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

††Total includes unknown ages.

§Data not available. Figures are estimates based on average of past available 4 weeks.

Cervical Cancer Deaths — Continued

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Cervical Cancer Control — Rhode Island

In 1987, 49 cases of invasive cervical cancer and 14 deaths from cervical cancer were reported in Rhode Island (*1*). Because progression to invasive disease and death from cervical cancer are regarded as preventable (*2*), in 1988, the Rhode Island Department of Health (RIDH) examined data from two recent surveys and from hospital records to assess the contributions of various circumstances to invasive cervical cancer.

Five circumstances* can lead to invasive cervical cancer: 1) the woman is not screened, 2) too long an interval elapses between screening tests, 3) the disease develops rapidly between a negative screening and a subsequent screening, 4) a test is interpreted as false-negative, or 5) the woman with a true-positive test result is not treated (*3*). To assess the importance of each of these circumstances, the RIDH used data from two 1987 cross-sectional surveys of Rhode Island women and from inpatient chart reviews of women diagnosed with cervical cancer from 1980 through 1986. To be consistent with the National Cancer Institute's (NCI) cancer-control objectives for cervical cancer screening (*4*), women aged 20–39 and 40–69 years were assessed separately. In Rhode Island, as elsewhere (*5*), more than half the invasive cervical cancers occurred in the older group (*1*).

*Based on a model developed in Connecticut that describes four circumstances leading to invasive cervical cancer (*3*).

Cervical Cancer Control — Continued

The first cross-sectional survey, part of CDC's Behavioral Risk Factor Surveillance System (random-digit-dialed telephone interviews of persons aged ≥18 years), was administered from September through November 1987. Women were asked if they had received a Papanicolaou (Pap) test within the last 3 years—a screening interval that conforms with NCI's cancer-control objectives for cervical cancer screening (*4*). The response rate for this survey was 83% (n=259). The second survey, conducted statewide during September and October 1987, focused on the use of cancer screening tests, including the Pap test, among women aged ≥40 (*6*). The response rate for this survey was 78% (n=852).

Medical records were reviewed for 153 women treated for newly diagnosed invasive cervical cancer from 1980 through 1986 at two major hospitals in Rhode Island. These women represented approximately two thirds of all Rhode Island women aged 20–69 years who were diagnosed with invasive cervical cancer during this period. RIDH collected information on sociodemographic characteristics and medical history. Screening histories were available in 81 (53%) of the medical records reviewed and were used to quantify the relative importance of the five circumstances.

The survey data indicate that more women aged 20–39 (87%) than aged 40–69 (76%) had been screened within the last 3 years (Table 1). Among the younger women, 13% had never been screened or had last been screened >3 years previously. Among the older women, 4% had never been screened, and 20% had last been screened >3 years previously.

Data from the medical record review corroborated the age differences in screening history observed in the survey data and suggested other problem areas for cervical cancer control (Figure 1). Each of these age groups—most notably women aged 40–69—included women who had never been screened or women who had been screened beyond the 3-year interval. However, among women aged 20–39, 22 (67%) had been negative on Pap smear screening within 3 years of diagnosis, and six (18%) had been screened positive within 3 years but had had a delay in treatment.

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TABLE 1. Pap test screening status, by age group — Rhode Island

	Age group (yrs)			
	20–39*		40–69†	
Screening status	%	(CI)§	%	(CI)§
Not screened in past 3 years	13	(6%–20%)	24	(21%–27%)
Never screened	NA¶		4	(2%–6%)
Screened, >3 years	NA		20	(17%–23%)
Screened in past 3 years	87	(80%–94%)	76	(73%–79%)
Total	**100**		**100**	

*Data from the Behavioral Risk Factor Surveillance System.
†Data from a separate cross-sectional survey of women aged ≥40 years, which allow determination of both the proportion of women who have never been screened and the proportion who have been screened >3 years previously.
§Two standard errors confidence interval.
¶Not available.

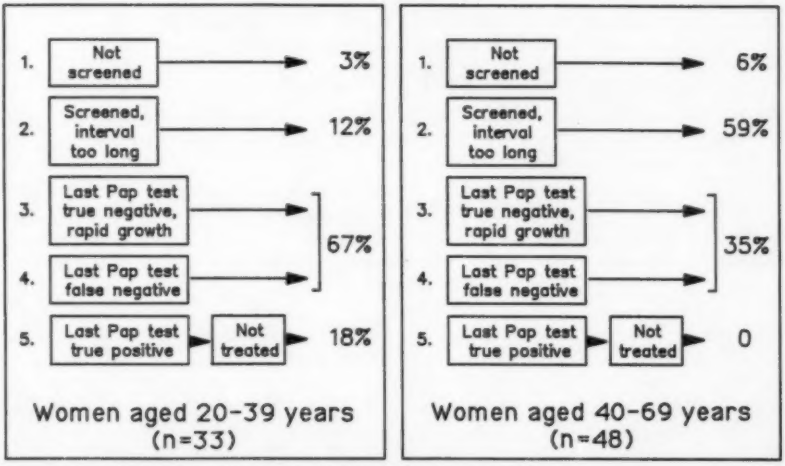
Cervical Cancer Control — Continued

Editorial Note: Screening with the Pap smear is widely accepted as the most effective way to detect cervical intraepithelial neoplasia at an early stage and prevent the morbidity and death associated with progression to late-stage cervical cancer. In the Rhode Island analysis, however, many women had not had a recent Pap test. Although younger women were more likely to have been recently screened, both groups included women who had never been screened with the Pap test (circumstance 1) and who had not been screened within the recommended interval (circumstance 2). Shorter screening intervals would not ensure that all cases of invasive cervical cancer would have been detected at an earlier stage of disease; nonetheless, findings in Rhode Island suggest opportunities for earlier detection, especially among women aged 40–69 years.

A large proportion of the invasive cases of both age groups occurred among women who had had a negative Pap test within 3 years of diagnosis (circumstances 3 and 4). False-negative tests, which can be caused by inadequacies in cell collection, smear preparation, or smear interpretation, probably are the primary circumstance leading to invasive cervical cancer among women whose medical records indicate a normal test result within the appropriate interval. Because of concerns about the variability in cytologic interpretation and the variability in clinical responses to abnormal results, NCI sponsored a workshop in December 1988. The outcome of this workshop—the Bethesda system for reporting cervical/vaginal cytological diagnoses (*7*)—addresses problems of variability among several reporting systems and their variable terminology.

Eighteen percent of younger women with invasive cervical cancer had a previous positive Pap test but were not treated (circumstance 5). Some women with a positive Pap smear test may not have received appropriate follow-up care because they were

FIGURE 1. Percentage of women with invasive cervical cancer, by age group and probable circumstance — Rhode Island, 1980–1986*



*Source: Inpatient chart reviews, Rhode Island Department of Health.

Cervical Cancer Control — Continued

not notified of their results, refused to return for treatment, or failed to receive follow-up care for other reasons. Because younger and less educated women are less likely to receive appropriate follow-up care after being notified of an abnormal Pap test (*8*), public health efforts should be strengthened to ensure these women are contacted, making further evaluation and treatment possible.

The RIDH, in cooperation with CDC, has developed a quality-assurance program in cervical cancer screening for the state. Results from this examination of cytologic quality assistance and screening outcomes will help shape a cervical cancer-control program for Rhode Island.

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Current Trends

Abortion Surveillance: Preliminary Analysis — United States, 1986 and 1987

In 1986 and 1987, 1,328,112 and 1,353,671 legal abortions, respectively, were reported to CDC from the 50 states and the District of Columbia (Table 1). From 1985 to 1986, the number of legal abortions decreased <1%; from 1986 to 1987, the number increased by 1.9%.

In 1986, the national abortion ratio was 354.2 legal abortions per 1000 live births (Table 1); in 1987, the ratio was 356.1. The national abortion rate (number of legal abortions per 1000 women 15–44 years of age) was 23 for 1986 and 24 for 1987. In both years, 92% of women who had legal abortions were residents of the state in which the procedure was performed (Table 1).

Women obtaining legal abortions in 1986 and 1987 were predominantly <25 years of age, white, and unmarried and had had no live births (Table 1). Curettage (suction and sharp) remained the primary method of abortion and accounted for 97% of all legal abortion procedures in 1986 and 1987, respectively. In both years, as in previous years, slightly more than half the legal abortions were performed in the first 8 weeks of gestation, and nearly 90%, in the first 12 weeks (Table 1).

Reported by: Pregnancy Epidemiology Br and Research and Statistics Br, Div of Reproductive Health, Center for Chronic Disease Prevention and Health Promotion, CDC.

Abortion — Continued

TABLE 1. Characteristics of women who obtained legal abortions — United States, selected years, 1972–1987

Characteristic	1972	1976	1980	1984	1985	1986	1987
Reported no. legal abortions	586,760	988,267	1,297,606	1,333,521	1,328,570	1,328,112	1,353,671
Abortion ratio*	180.1	312.0	359.2	364.1	353.8	354.2	356.1
Abortion rate†	13	21	25	24	24	23	24
	Percentage distribution§						
Residence							
Abortion in-state	56.2	90.0	92.6	92.0	92.4	92.3	92.0
Abortion out-of-state	43.8	10.0	7.4	8.0	7.6	7.7	8.0
Age (yrs)							
≤19	32.6	32.1	29.2	26.4	26.3	25.3	25.8
20–24	32.5	33.3	35.5	35.3	34.7	34.0	33.4
≥25	34.9	34.6	35.3	38.3	39.0	40.7	40.8
Race							
White	77.0	66.6	69.9	67.4	66.6	67.0	66.4
Black and other	23.0	33.4	30.1	32.6	33.4	33.0	33.6
Marital status							
Married	29.7	24.6	23.1	20.5	19.3	23.5	27.2
Unmarried	70.3	75.4	76.9	79.5	80.7	76.5	72.8
No. live births¶							
0	49.4	47.7	58.4	57.0	56.3	55.1	53.6
1	18.2	20.7	19.5	20.9	21.6	22.1	22.8
2	13.3	15.4	13.7	14.4	14.5	14.9	15.5
3	8.7	8.3	5.3	5.1	5.1	5.3	5.5
≥4	10.4	7.9	3.2	2.6	2.5	2.6	2.6
Type of procedure							
Curettage	88.6	92.8	95.5	96.8	97.5	97.0	97.2
Suction	65.2	82.6	89.8	93.1	94.6	94.5	93.3
Sharp	23.4	10.2	5.7	3.7	2.9	2.5	3.7
Intrauterine instillation	10.4	6.0	3.1	1.9	1.7	1.4	1.3
Hysterotomy/ hysterectomy	0.6	0.2	0.1	0.0**	0.0**	0.0**	0.0**
Other	0.5	0.9	1.3	1.3	0.8	1.6	1.5
Gestation (wks)							
≤8	34.0	47.0	51.7	50.5	50.3	51.0	50.4
9–10	30.7	28.0	26.2	26.4	26.6	25.8	26.0
11–12	17.5	14.4	12.2	12.6	12.5	12.2	12.4
13–15	8.4	4.5	5.2	5.8	5.9	6.1	6.2
16–20	8.2	5.1	3.9	3.9	3.9	4.1	4.2
≥21	1.3	0.9	0.9	0.8	0.8	0.8	0.8

*Number of abortions per 1000 live births.
†Number of abortions per 1000 women 15–44 years of age.
§Excludes unknown values. Since the number of states reporting each characteristic varies from year to year, temporal comparisons should be made with caution.
¶For 1972 and 1976, data indicate number of living children.
**<0.05%.

Errata: Vol. 38, No. 37

In "Surveillance for Occupational Lead Exposure—United States, 1987," a word was omitted from the second sentence of the article (page 642). The second sentence should read, "Although the details of these systems vary, each state requires any laboratory that performs blood-lead assays to report all elevated blood-lead levels (BLLs) to the state health department (SHD) (Table 1)."

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On page 32 of the *MMWR Recommendations and Reports,* "1989 Sexually Transmitted Diseases Treatment Guidelines," the dosing schedule under Recommended Regimen B for the post-hospitalization use of oral clindamycin for pelvic inflammatory disease (5 times daily) is incorrect. The correct treatment schedule is clindamycin, 450 mg orally, 4 times daily.

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